Claims

1. A digital apparatus comprising:

(a) means for receiving from a peripheral device, interconnected by a digital bus, bit-mapped data representative of an on-screen display associated with said peripheral device;

(b) means for receiving a digital stream representative of a programmed event; and

(c) means for combining, in said digital apparatus, said bit-mapped data received from said peripheral device and said digital stream to produce a signal representative of a combined displayable image.

2. The digital apparatus of claim 1 further comprising:

(a) means for receiving subsequent bit-mapped data representative of an updated portion of said previously received data; and

(b) means for updating said combined displayable image with said received subsequent bit-mapped data to produce an updated combined displayable image, said updated combined displayable image being associated with said peripheral device.

3. The digital apparatus of claim 2 wherein a portion of said combined displayable image is overwrititen, said digital apparatus further comprising :

(a) means for requesting from said peripheral device said bit-mapped data corresponding to said overwritten portion of said combined displayable image; and

(b) means for receiving from said peripheral device said bit-mapped data.

4. The digital apparatus of claim 3 further comprising:

means for selecting said peripheral device from a plurality of available peripheral devices interconnected by said digital bus.

5. The digital apparatus of claim 4 further comprising:

means for notifying said peripheral device of a format change in said display device in response to a format change of said received digital stream.

6. The digital apparatus of claim 5 further comprising:

means for shifting said bit-mapped data within said combined displayable image.

7. A method for managing an on-screen display menu of a peripheral device interconnected to a display device via a digital bus, the display device performing the steps of:

(a) receiving, from said peripheral device, a message indicative of the characteristics of a block of bit-mapped data stored in a memory device associated with said peripheral device, said bit-mapped data being associated with an on-screen display menu of said peripheral device;

(b) generating and providing asynchronous read request command to said peripheral device;

(c) receiving, in response to said asynchronous read request command, said bit-mapped data from said peripheral device;

(d) receiving a digital stream representative of a programmed event; and

(e) combining said bit-mapped data received from said peripheral device and said digital stream to produce a combined displayable image, said combined image being representative of said on-screen display associated with said peripheral device.

8. The method of claim 7 wherein said message contains the location and size of said block of bit-mapped data stored in said memory device.

9. The method of claim 8 wherein said data comprises a header and a bit-mapped update block, said header defining the parameters of said on-screen display menu and said bit-mapped update block defining the location and content of said menu.

Amd cont'd

AMENDED SHEET

10. A digital television apparatus comprising:

(a) receiving from a peripheral device, interconnected by a digital bus, bit-mapped data representative of an on-screen display associated with said peripheral device; and

(b) receiving from said peripheral device, interconnected by a digital bus, subsequent bit-mapped data representative of an updated portion of said previously transferred bit-mapped data, said subsequent bit-mapped data being indexed into said previously transferred bit-mapped data.